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PATENT APPLICATION

ATTORNEY DOCKET NO. ___200308979-1___

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s):   Richard D. Ellison

Application No.: 10/719,771

Filing Date: November 21, 2003

Confirmation No.: 3099

Examiner: Alexander Jamal

Group Art Unit: 2614

Title: GAIN CONTROL

Mail Stop Appeal Brief - Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF REPLY BRIEF

Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on ___November 9, 2007___ .
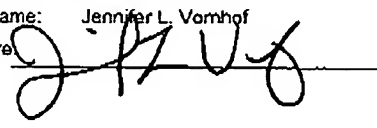
This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new ground rejection.)

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Typed Name: Jennifer L. Vomhof
Signature

Respectfully submitted,
Richard D. Ellison
By
Edward J. Brooks, III
Attorney/Agent for Applicant(s)

Reg No. :   40,925

Date :   12/14/2007

Telephone : (612) 236-0120

Rev 10/07 (Reply3rf)

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Rev 10/07 (ReplyBrf)

Docket No.: 200308979-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	10/719,771
Appellants:	:	Richard D. Ellison
Filed:	:	November 21, 2003
TC/A.U.	:	2614
Examiner:	:	Alexander Jamal
Title	:	GAIN CONTROL

APPELLANTS' REPLY BRIEF TO EXAMINER'S ANSWER DATED NOVEMBER 9, 2007

MS APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir or Madame:

This Reply Brief, in compliance with 37 C.F.R. § 41.41, is in response to the Examiner's

Answer dated November 9, 2007 and in furtherance of the Notice of Appeal filed under 37

C.F.R. § 41.31 on July 2, 2007.

The Examiner's Grounds for Rejection are substantially the same as those presented in

the Final Office Action dated June 5, 2007. Appellant has addressed these rejections in the

Appeal Brief dated July 18, 2007. In the Examiner's Answer dated November 9, 2007 the

Examiner provides a response to the arguments presented in the Appeal Brief. Appellant

respectfully traverses the assertions and conclusions provided in the Examiner's response. The

following is the Appellant's Reply Brief in response to the Examiner's Answer dated November

9, 2007, which incorporates the Appeal Brief dated July 18, 2007.

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This brief contains items under the following headings as required by 37 C.F.R. § 41.37:

I.   Real Party In Interest

II.   Related Appeals and Interferences

III.   Status of Claims

IV.   Status of Amendments

V.   Summary of Claimed Subject Matter

VI.   Grounds of Rejection to be Reviewed on Appeal

VII.   Argument

VIII.   Claims Appendix

IX.   Evidence Appendix

X.   Related Proceedings Appendix

The final page of this brief bears the attorney's signature.

I.   REAL PARTY IN INTEREST

The real parties in interest for this appeal are:

A.   The Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"); and

B.   HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II.   RELATED APPEALS AND INTERFERANCES

Appellant submits that no related application is presently undergoing appeal or interference proceedings.

III.   STATUS OF CLAIMS

A.   Total Claims: 1-37

B.   Current Status of Claims:

    1.   Claims canceled: none

    2.   Claims withdrawn: none

    3.   Claims pending: 1-37

    4.   Claims allowed: none

    5.   Claims rejected: 1-37

    6.   Claims objected to: none

C.   Claims on Appeal: 1-37

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IV.   STATUS OF AMENDMENTS

Appellant has not filed any amendments to the application subsequent to the
Final Office Action.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

A.   Independent claim 1

Independent claim 1 recites a gain controller including a measurement
module having program instructions to measure a power level of an outgoing voice
signal stream before the outgoing voice signal stream enters an output channel that
is communicating the outgoing voice signal stream to a Public Switched Telephone
Network (PSTN). (Page 2, line 31, through page 3, line 9; page 6, line 1, through
page 7, line 26; page 8, lines 1-22; page 11, lines 31-33; page 15, lines 7-12; and
Figures 1-5). The gain controller also includes a gain factor setting module having
program instructions to set a gain value by comparing the measured power level to a
threshold (page 6, line 25, through page 7, line 8; page 7, lines 26-33; page 8, line
24, through page 9, line 4; page 10, lines 5-16; page 12, lines 1-8 and 23-32; and
Figures 2-4), and a gain adjustment module having program instructions to adjust
the power level of the outgoing voice signal stream by applying the gain value to the
outgoing voice signal stream (page 3, lines 5-9; page 7, lines 3-8; page 9, lines 6-19;
page 10, line 18, through page 11, line 13; page 12, lines 10-21; and Figures 2-4) to
operate within compliance of the PSTN before the outgoing voice signal stream
enters the output channel in communication with the PSTN. (Page 2, line 31,
through page 3, line 5; page 9, line 21, page 10, line 3; page 15, lines 7-12; and
Figures 1, 2, and 5).

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Independent claim 1 is argued together with dependent claims 2-6.

B.   Independent claim 7

Independent claim 7 recites a gain control system including a switch to receive a voice signal stream from a voice signal source (page 2, line 31, through page 3, line 5; page 3, lines 11-32; page 4, line 14, through page 6, line 8; page 11, lines 24-29; page 13, line 8, through page 15, line 5; and Figures 1, 2, 4, and 5), and a gain adjustment module to receive an outgoing voice signal stream from the switch, the gain adjustment module having program instructions to adjust a power level of the outgoing voice signal stream by applying a gain value to the outgoing voice signal stream. (Page 3, lines 5-9; page 7, lines 3-8; page 9, lines 6-19; page 10, line 18, through page 11, line 13; page 12, lines 10-21; and Figures 2-4). The gain control system also includes a measurement module having program instructions to measure a power level at a number of segments of the outgoing voice signal stream before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN). (Page 2, line 31, through page 3, line 9; page 6, line 1, through page 7, line 26; page 8, lines 1-22; page 11, lines 31-33; page 15, lines 7-12; and Figures 1-5). In addition, the gain control system includes a gain factor setting module coupled to the gain adjustment module where the gain factor setting module includes program instructions to set the gain value by comparing the measured power level to a threshold (page 6, line 25, through page 7, line 8; page 7, lines 26-33; page 8, line 24, through page 9, line 4; page 10, lines 5-16; page 12, lines 1-8 and 23-32; and Figures 2-4) to operate within compliance of the PSTN before the

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outgoing voice signal stream enters the output channel in communication with the PSTN. (Page 2, line 31, through page 3, line 5; page 9, line 21, page 10, line 3; page 15, lines 7-12; and Figures 1, 2, and 5).

Independent claim 7 is argued together with dependent claims 8-13.

C.   Independent claim 14

Independent claim 14 recites a gain control system including a voice signal source to produce an outgoing voice signal stream, the voice signal source coupled to a Public Switched Telephone Network (PSTN) (page 2, line 31, through page 3, line 5; page 3, lines 11-32; page 4, line 14, through page 6, line 8; page 11, lines 24-29; page 13, line 8, through page 15, line 5; and Figures 1, 2, 4, and 5), and a media platform coupled to the PSTN and the voice signal source. (Page 3, line 11, through page 6, line 8; page 13, line 8, through page 15, line 5; and Figures 1 and 5). The media platform includes a switch to receive the voice signal stream from the voice signal source (page 2, line 31, through page 3, line 5; page 3, lines 11-32; page 4, line 14, through page 6, line 8; page 11, lines 24-29; page 13, line 8, through page 15, line 5; and Figures 1, 2, 4, and 5), a measurement module having program instructions to measure a power level of an outgoing voice signal stream before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to the PSTN (page 2, line 31, through page 3, line 9; page 6, line 1, through page 7, line 26; page 8, lines 1-22; page 11, lines 31-33; page 15, lines 7-12; and Figures 1-5), means for adjusting a power level of the voice signal stream (page 3, lines 5-9; page 6, line 25, through page 7, line 8; page 7, lines 3-8 and lines 26-33; page 8, line 24, through page 9, line 4; page 9, lines 6-19; page

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10, line 5, through page 11, line 13; page 12, lines 1-32; and Figures 2-4) to operate within compliance of the PSTN before the outgoing voice signal stream enters an output channel in communication with the PSTN (page 2, line 31, through page 3, line 5; page 9, line 21, page 10, line 3; page 15, lines 7-12; and Figures 1, 2, and 5), and the output channel in communication with the PSTN to receive the voice signal stream from the media platform. (Page 3, lines 17-32; page 5, lines 1-8; page 6, lines 1-8 and line 30 through page 7, line 15; page 12, lines 14-16; page 13, line 8, through page 15, line 5; and Figures 1, 2, and 5).

Independent claim 14 is argued together with dependent claims 15-20.

D.   Independent claim 21

Independent claim 21 recites a method for adjusting the power level of a voice signal stream. The method includes receiving an outgoing voice signal stream (page 2, line 31, through page 3, line 5; page 3, lines 11-32; page 4, line 14, through page 6, line 8; page 11, lines 24-29; page 13, line 8, through page 15, line 5; and Figures 1, 2, 4, and 5), measuring a power level of the outgoing voice signal stream at a number of points in time before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN) (page 2, line 31, through page 3, line 9; page 6, line 1, through page 7, line 26; page 8, lines 1-22; page 11, lines 31-33; page 15, lines 7-12; and Figures 1-5), comparing at least one of the power levels measured at the number of points in time with a threshold (page 6, line 25, through page 7, line 8; page 7, lines 26-33; page 8, line 24, through page 9, line 4; page 10, lines 5-16; page 12, lines 1-8 and 23-32; and Figures 2-4), and adjusting the power level of the

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outgoing voice signal stream based on the comparison (page 3, lines 5-9; page 7, lines 3-8; page 9, lines 6-19; page 10, line 18, through page 11, line 13; page 12, lines 10-21; and Figures 2-4) to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN. (Page 2, line 31, through page 3, line 5; page 9, line 21, page 10, line 3; page 15, lines 7-12; and Figures 1, 2, and 5).

Independent claim 21 is argued together with dependent claims 22-26.

E.   Independent claim 27

Independent claim 27 recites a computer readable medium having a program to cause a device to perform a method. The method includes receiving an outgoing voice signal stream (page 2, line 31, through page 3, line 5; page 3, lines 11-32; page 4, line 14, through page 6, line 8; page 11, lines 24-29; page 13, line 8, through page 15, line 5; and Figures 1, 2, 4, and 5), measuring a power level of the outgoing voice signal stream at a number of points in time before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN) (page 2, line 31, through page 3, line 9; page 6, line 1, through page 7, line 26; page 8, lines 1-22; page 11, lines 31-33; page 15, lines 7-12; and Figures 1-5), comparing at least one of the measured power levels with a threshold (page 6, line 25, through page 7, line 8; page 7, lines 26-33; page 8, line 24, through page 9, line 4; page 10, lines 5-16; page 12, lines 1-8 and 23-32; and Figures 2-4), and adjusting the power level of the outgoing voice signal stream based on the comparison (page 3, lines 5-9; page 7, lines 3-8; page 9, lines 6-19; page 10, line 18, through page 11, line 13; page 12,

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lines 10-21; and Figures 2-4) to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN. (Page 2, line 31, through page 3, line 5; page 9, line 21, page 10, line 3; page 15, lines 7-12; and Figures 1, 2, and 5).

Independent claim 27 is argued together with dependent claims 28-33.

F.   Independent claim 34

Independent claim 34 recites a method for adjusting the power level of a voice signal stream. The method includes measuring a power level of an outgoing voice signal stream at a number of points in time before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN) (page 2, line 31, through page 3, line 9; page 6, line 1, through page 7, line 26; page 8, lines 1-22; page 11, lines 31-33; page 15, lines 7-12; and Figures 1-5), comparing a number of the power levels measured with a number of thresholds (page 6, line 25, through page 7, line 8; page 7, lines 26-33; page 8, line 24, through page 9, line 4; page 10, lines 5-16; page 12, lines 1-8 and 23-32; and Figures 2-4), and gradually adjusting the power level of the outgoing voice signal stream over time based on the comparison to bring the power level toward a target output level (page 3, lines 5-9; page 7, lines 3-8; page 9, lines 6-19; page 10, line 18, through page 11, line 13; page 12, lines 10-21; and Figures 2-4) to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN. (Page 2, line 31, through page 3, line 5; page 9, line 21, page 10, line 3; page 15, lines 7-12; and Figures 1, 2, and 5).

Independent claim 34 is argued together with dependent claims 35-37.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A.   Whether or not claims 1-37 are unpatentable under 35 USC § 102(b) over Smith et al. (US Patent 5,267,322) (Digital Automatic Gain Control with Lookahead, Adaptive Noise Floor Sensing, and Decay Boost Initialization).

VII. ARGUMENT – Including a Reply to the Examiner's Answer

A.   Arguments against the rejections under § 102(b) over the Smith '322 reference.

     1.   Arguments regarding claims 1-37.

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, arranged as in the claim." *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)).

Appellants respectfully submit that Smith does not support a *prima facie* case of anticipation under § 102(b) for the following reasons:

     a.   **For claims 1-37, the cited reference does not disclose each and every element.**

Appellant's independent claims 1, 7, 14, 21, 27, and 34 each presently

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recites, "an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN)".

From Appellant's review of the Smith '322 reference, the reference does not describe, "an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN)", as recited in Appellant's independent claims 1, 7, 14, 21, 27, and 34. For example, the Smith reference states in column 5, lines 27-32:

> The telephone interface elements 20 include one or more analog line interface modules 24, which receive incoming calls on a public switched telephone line 70. As is known in the art, the analog interface modules digitize incoming call signals and assign the call to a channel in the system.

Element 70 in Fig. 1A of Smith appears to show output only "to PBX or central office switch". As found in the Webopedia Computer Dictionary (www.webopedia.com/TERM/P/PBX.html), the definition of "PBX" is "*private branch exchange*, a private telephone network used within an enterprise." (Emphasis in original). Smith also states, "As shown in Fig. 1C, voice data samples are obtained by the analog interface modules 24 which receive analog voice audio 80 from a telephone line on trunk 70." (Col. 6, line 67, through col. 7, line 1). The "central office switch" to which output is sent from element 70 in Fig. 1A of Smith, as in the Webopedia Computer Dictionary, also appears to be utilized with "a private telephone network used within an enterprise."

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In addition, Smith states in the System Overview that "The system preferably is the VoiceServer 2110 product commercially available from Digital Sound Corp., Carpinteria, Calif." (Col. 5, lines 15-18). Hence, the Smith reference appears to describe <u>a voice messaging system</u> to <u>receive incoming calls</u> on a public switched telephone line and internally <u>assign such calls to a line, or channel, in the system</u>.

The Smith '322 reference does not show a gain adjustment module including program instructions to <u>adjust the power level of the outgoing voice signal stream</u> by applying the gain value to the outgoing voice signal stream to operate within compliance of a Public Switched Telephone Network (PSTN) <u>before the outgoing voice signal stream enters an output channel connected to the PSTN</u>. As such, the Smith '322 reference does not describe, "an output channel that is <u>communicating the outgoing voice signal stream to a Public Switched Telephone Network</u> (PSTN)", as recited in Appellant's independent claims 1, 7, 14, 21, 27, and 34.

Hence, the Smith '322 reference does not describe:

> a gain adjustment module including program instructions to adjust the power level of the outgoing voice signal stream by <u>applying the gain value</u> to the outgoing voice signal stream to operate within compliance of the PSTN <u>before the outgoing voice signal stream enters the output channel in communication with the PSTN</u>.

as recited in Appellant's independent claim 1, as previously presented;

> a gain factor setting module coupled to the gain adjustment module wherein the gain factor setting module includes program

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instructions to <u>set the gain value</u> by comparing the measured power

level to a threshold to operate within compliance of the PSTN <u>before</u>

<u>the outgoing voice signal stream enters the output channel in</u>

<u>communication with the PSTN</u>.

as recited in Appellant's independent claim 7, as previously presented;

means for <u>adjusting a power level</u> of the voice signal stream

to operate within compliance of the PSTN <u>before the outgoing voice</u>

<u>signal stream enters an output channel in communication with the</u>

<u>PSTN</u>;

as recited in Appellant's independent claim 14, as previously presented;

<u>adjusting the power level</u> of the outgoing voice signal stream

based on the comparison to operate within compliance of the PSTN

<u>before the outgoing voice signal stream enters the output channel in</u>

<u>communication with the PSTN</u>.

as recited in Appellant's independent claims 21 and 27, as previously presented; and

gradually <u>adjusting the power level</u> of the outgoing voice

signal stream over time based on the comparison to bring the power

level toward a target output level to operate within compliance of the

PSTN <u>before the outgoing voice signal stream enters the output</u>

<u>channel in communication with the PSTN</u>.

as recited in Appellant's independent claims 21 and 27, as previously presented.

As indicated in the Summary of Claimed Subject Matter in Section V of the

present Appeal Brief, support for the underlined elements of the just-recited claims

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can be found in the specification of the present application as originally filed. For example, the specification recites on page 6, line 31, through page 7, line 1:

> In the embodiment shown in Figure 2, the gain controller 220 uses computer executable instructions to monitor the power level of the signal stream between a voice signal source 202 and an output channel 208, that is in communication with the PSTN 222.

Further support can be found on: page 6, lines 10-15; page 12, lines 15-16; and page 15, lines 7-12. Additional support can be found elsewhere in the specification as originally filed, as indicated in the Summary of Claimed Subject Matter, for example in Figures 1, 2, and 5.

> The Examiner asserts on page 9 of the Examiner's Answer that:
>
> The Examiner contends that trunk 70 [in Figure 1A] to the central office as a PSTN interface ('output channel' in appellant's claims) and that the AGC disclosed by smith [*sic*] will operate on all signals on the TDM during a realtime telephone call, which would include incoming and outgoing voice signals. Smith never states that the AGC only acts on incoming signals.

Appellant respectfully traverses this assertion.

> Appellant respectfully submits that Smith does not describe, for example:
>
> > a gain adjustment module including program instructions to adjust the power level of the outgoing voice signal stream by applying the gain value to the outgoing voice signal stream to operate

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within compliance of the PSTN before the outgoing voice signal

stream enters the output channel in communication with the PSTN.

as recited in Appellant's independent claim 1, as previously presented.

Appellant respectfully submits that Smith only teaches, as presented above

with regard to column 5, lines 27-32, of the reference:

> The telephone interface elements 20 include one or more
>
> analog line interface modules 24, which receive incoming calls on a
>
> public switched telephone line 70. As is known in the art, the analog
>
> interface modules digitize incoming call signals and assign the call to
>
> a channel in the system.

As also presented above, Smith states in the System Overview that "The system

preferably is the VoiceServer 2110 product commercially available from Digital

Sound Corp., Carpinteria, Calif." (Col. 5, lines 15-18). Hence, the Smith reference

appears to describe a voice messaging system to receive incoming calls on a public

switched telephone line and internally assign such calls to a line, or channel, in the

system.

Moreover, although the express, implicit, and inherent disclosures of a prior

art reference may be relied upon in the rejection of claims under 35 U.S.C. § 102,

"[t]he fact that a certain result or characteristic may occur or be present in the prior

art is not sufficient to establish the inherency of that result or characteristic." In re

Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). "To

establish inherency, the extrinsic evidence 'must make clear that the missing

descriptive matter is necessarily present in the thing described in the reference, and

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that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. <u>The mere fact that a certain thing may result from a given set of circumstances is not sufficient</u>.' " <u>In re Robertson</u>, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art." <u>Ex parte Levy</u>, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

With respect to the Examiner's assertions presented above, Appellant respectfully submits that just because an automatic gain control system <u>may</u> be used in the context of outgoing calls to the PSTN, this does not mean that Smith inherently teaches that an automatic gain control system <u>must necessarily</u> be used in the context of outgoing calls to the PSTN. Rather, it would appear that the Examiner has asserted that a certain result <u>may</u> occur, but has not provided "any basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art."

In other words, it does not appear that the extrinsic evidence provided by the Examiner has made clear (1) that the missing descriptive matter is necessarily present in the thing described in the reference, (2) that it would be so recognized by persons of ordinary skill, or (3) that the allegedly inherent characteristic <u>necessarily</u> flows from the teachings of the applied prior art.

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As such, there is no indication in the Smith reference that the voice messaging system operates on any calls other than incoming calls. As presented above, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, arranged as in the claim." Appellant respectfully submits that the Examiner's assertion that "Smith never states that the AGC only acts on incoming signals" is incorrect and that, in any case, asserting that a reference does not teach away from a claim element does not satisfy the condition for a § 102(b) rejection that "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, arranged as in the claim." Hence, Appellant respectfully submits that the Examiner has inappropriately applied § 102(b) to independent claims 1, 7, 14, 21, 27, and 34, as previously presented.

The Examiner then asserts on page 9 of the Examiner's Answer that:

Appellant's Specification gives no limitation or guidance as to what

defines the boundaries of the PSTN, other than to say that it

conforms with known standards. The examiner reads the PSTN as

defined by any devices (such as telephones), that are connected to it.

Since a well-known PSTN is bidirectional, any path may be

considered an 'input channel' or an 'output channel' depending on

which end is receiving the data t that moment.

Appellant respectfully traverses this assertion.

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Appellant respectfully submits that the specification of the present application <u>does</u> give limitation or guidance as to what <u>defines the boundaries of the PSTN, in addition to</u> defining conformity with known standards. Among a number of examples, the specification as originally submitted provides support for the previous statement by reciting, "Terminal equipment includes <u>communications equipment at the end of a communications link used to permit access to the PSTN</u>." (Page 1, lines 17-19). The specification goes on to recite, "Under Part 68, the <u>terminal equipment has to be certified by the FCC and/or the Administrative Counsel for Terminal Attachments</u> (ACTA)." (Page 1, lines 24-25).

The specification of the present application as originally submitted recites, "the <u>certification body evaluates the equipment and certifies the equipment</u> based on the results of tests performed on the sample by the certification body." (Page 1, lines 30-32). The specification further recites, "However, the test results may not equate to actual use conditions. Therefore, the <u>equipment may not be compliant under some actual use conditions</u>." (Page 2, lines 12-14).

Further limitations and/or guidance as to what defines the boundaries of the PSTN, as described in the present application, can be found with regard to Figure 5. As recited in the specification as originally submitted on page 13, lines 8-11:

Figure 5 is a block diagram of <u>a mobile network</u> embodiment illustrating <u>a mobile device</u> 502, communicating with <u>a mobile switching center</u> (MSC) 542. One type of mobile network includes <u>an IS-41/CDMA network</u> as the same are known and understood by one of ordinary skill in the art.

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The specification goes on to recite on page 13, lines 13-17:

> In a typical wireless communication system, the MSC is
>
> connected to a plurality of base stations that are dispersed throughout
>
> the geographic area serviced by the system. The geographic area
>
> serviced by a wireless communications system is partitioned into a
>
> number of spatially distinct areas called "cells."

The specification of the present application as originally submitted further

recites, "As shown in Figure 5, the gateway MSC 504 can serve as a network switch

for connecting to a public switched telephone network (PSTN) 522." (Page 14,

lines 29-31). In addition, the specification recites on page 15, lines 7-10:

> Along the route to connection of the call signal to the PSTN
>
> 522, a gain controller, as described in Figures 1 and 2, can be used to
>
> adjust the gain. This can enable a system such as that shown in
>
> Figure 5 to comply with the maximum gain standards provided in
>
> Part 68.

Moreover, further support can be found, among other locations, at: page 2, lines 2-4;

page 2, line 31, through page 3, line 3; page 6, lines 4-8; page 12, lines 14-16;page

12, lines 29-31; page 15, lines 4-5; and Figures 1, 2, and 5.

A website for "internet professionals"

(http://inetdaemon.com/tutorials/telecom/pstn/definition.shtml) provides a definition

of the public switched telephone system (PSTN), as recited in independent claims 1,

7, 14, 21, 27, and 34 of the present application. The definition states:

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This system is <u>made available to the public through a group</u>

<u>of common communications carriers such as American and Canadian</u>

<u>phone companies</u> who have agreed to exchange calls and connections

on behalf of their subscribers <u>as mandated by international law and</u>

<u>the laws of the country in which they do business and provide</u>

<u>telephone service</u>. Anyone who subscribes to this public service may

make calls to anyone else who has purchased access to the phone

system through any carrier.

The PSTN is composed of telephone exchanges networked

together to form a nationwide (and worldwide) telephone

communications system. <u>It is public because (theoretically) the</u>

<u>system is available to anyone who can afford the service</u>.

In contrast, as previously presented, the Smith reference in general, and

element 70 in Fig. 1A in particular, appears to show output only "to PBX or central

office switch". The website for internet professionals

(http://inetdaemon.com/tutorials/telecom/pstn/pbx/index.shtml) also provides a

definition for a private branch exchange that states, "A Private Branch Exchange

<u>(PBX) is a call switching device owned and operated by a private company</u>." The

definition goes on to state, "The PBX makes it possible for <u>an organization to make</u>

<u>calls within their own organization without using the external phone company</u> and

without purchasing a large number of voice phone circuits."

Hence, Appellant respectfully submits that the specification of the present

application <u>does</u> give limitation or guidance as to what <u>defines the boundaries of the</u>

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PSTN, in addition to saying that it conforms with known standards, contrary to the

assertion of the opposite by the Examiner. In addition, Applicant respectfully

submits that the difference between the PSTN, as claimed in the present application,

and a PBX, to which the description of the Smith reference appears to be limited,

can be appreciated by one of ordinary skill in the relevant art. That is, the PSTN is

made available to the public through a group of common communications carriers,

such as American and Canadian phone companies, as mandated by international law

and the laws of the country in which they do business and provide telephone service

and the PSTN is public because the system is available to anyone who can afford

the service.

The PSTN is distinguishable from a PBX, as described in Smith, because a

PBX is a call switching device owned and operated by a private company that

makes it possible for an organization to make calls within their own organization

without using the external phone company. In contrast, as discussed and illustrated

with regard to Figure 5, and recitations throughout the specification of the present

application, the gain value adjustment before the outgoing voice signal stream enters

an output channel that is communicating the outgoing voice signal stream to the

PSTN is not compatible with a call switching device owned and operated by a

private company that makes it possible for an organization to make calls within their

own organization without using the external phone company. Moreover, a PBX is

not regulated by international law and the laws of the country in which they do

business and provide telephone service, in contrast to a gain control system as

described and claimed in the present application.

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As such, Appellant respectfully submits that each and every element and limitation of independent claims 1, 7, 14, 21, 27, and 34, as previously presented, is not present in the Smith reference. Accordingly, Appellant respectfully requests reconsideration and withdrawal of the § 102(b) rejection of independent claims 1, 7, 14, 21, 27, and 34, as previously presented, as well as those claims that depend therefrom.

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CONCLUSION

Appellant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner and/or members of the Board are invited to telephone Appellant's attorney Edward J. Brooks III at (612) 236-0120 to facilitate this appeal.

At any time during the pendency of this application, please charge any additional fees or credit overpayment to the Deposit Account No. 08-2025.

CERTIFICATE UNDER 37 C.F.R. §1.8: The undersigned hereby certifies that this correspondence is being transmitted to United States Patent and Trademark Facsimile number (571) 273-8300, on this 14 day of December, 2007.

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Date: 12/14/2007

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PAGE 25/33 * RCVD AT 12/14/2007 3:51:45 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-5/6 * DNIS:2738300 * CSID:6126599344 * DURATION (mm-ss):06-26

VIII. CLAIMS APPENDIX

1.   (Previously Presented) A gain controller, comprising:

a measurement module including program instructions to measure a power level of an outgoing voice signal stream before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN);

a gain factor setting module including program instructions to set a gain value by comparing the measured power level to a threshold; and

a gain adjustment module including program instructions to adjust the power level of the outgoing voice signal stream by applying the gain value to the outgoing voice signal stream to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN. .

2.   (Original) The controller of claim 1, wherein the gain factor setting module includes program instructions to compare the measured power level to at least two thresholds in order to set the gain value.

3.   (Original) The controller of claim 1, wherein the gain factor setting module includes program instructions to store measured power levels and a previously applied gain value to a memory.

4.   (Original) The controller of claim 1, wherein the gain adjustment module includes program instructions to apply the gain value, set by the gain factor setting module, to the voice signal stream to maintain the power level between a high threshold and a low threshold.

5.   (Original) The controller of claim 1, wherein the gain adjustment module includes program instructions to multiply the power level by the gain value.

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6.   (Original) The controller of claim 1, wherein the gain adjustment module includes program instructions to add the gain value to the power level.

7.   (Previously Presented) A gain control system, comprising:

a switch to receive a voice signal stream from a voice signal source;

a gain adjustment module to receive an outgoing voice signal stream from the switch, the gain adjustment module including program instructions to adjust a power level of the outgoing voice signal stream by applying a gain value to the outgoing voice signal stream;

a measurement module including program instructions to measure a power level at a number of segments of the outgoing voice signal stream before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN); and

a gain factor setting module coupled to the gain adjustment module wherein the gain factor setting module includes program instructions to set the gain value by comparing the measured power level to a threshold to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN.

8.   (Original) The system of claim 7, wherein the gain adjustment module can adjust the gain before the voice signal stream has entered an output channel.

9.   (Original) The system of claim 7, further including memory to store a number of power level measurements taken at the number of segments in the voice signal stream.

10.   (Original) The system of claim 9, further including program instructions to add the number of power level measurements together to provide a total power level.

11.   (Original) The system of claim 10, further including program instructions to average the added power level measurements to provide an average power level.

12.   (Original) The system of claim 7, further including program instructions to compare the measured power level to two different high threshold levels.

13.   (Original) The system of claim 7, further including program instructions to compare the measured power level to a high threshold level and a low threshold level.

14.   (Previously Presented) A gain control system, comprising:

a voice signal source to produce an outgoing voice signal stream, the voice signal source coupled to a Public Switched Telephone Network (PSTN);

a media platform coupled to the PSTN and the voice signal source, the media platform having:

a switch to receive the voice signal stream from the voice signal source;

a measurement module including program instructions to measure a power level of an outgoing voice signal stream before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to the PSTN;

means for adjusting a power level of the voice signal stream to operate within compliance of the PSTN before the outgoing voice signal stream enters an output channel in communication with the PSTN; and

the output channel in communication with the PSTN to receive the voice signal stream from the media platform.

15.   (Original) The system of claim 14, wherein means for adjusting the power level of the voice signal stream includes a gain controller having a set of computer executable instructions.

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16.   (Original) The system of claim 15, wherein the gain controller includes a measurement module, a gain factor setting module, and a gain adjustment module.

17.   (Original) The system of claim 16, wherein the measurement module measures the power level of the voice signal stream.

18.   (Original) The system of claim 16, wherein the gain factor setting module sets a gain value for application to the power level based upon measurement information from the measurement module.

19.   (Original) The system of claim 16, wherein the gain adjustment module adjusts the gain applied to the power level based upon the gain value selected by the gain factor setting module.

20.   (Original) The system of claim 14, wherein means for adjusting the power level includes program instructions stored in memory within the media platform and executed by a processor.

21.   (Previously Presented) A method for adjusting the power level of a voice signal stream, comprising:
        receiving an outgoing voice signal stream;
        measuring a power level of the outgoing voice signal stream at a number of points in time before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN);
        comparing at least one of the power levels measured at the number of points in time with a threshold; and
        adjusting the power level of the outgoing voice signal stream based on the comparison to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN.

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22.   (Original) The method of claim 21, wherein comparing at least one of the power levels measured at the number of points in time includes comparing at least one of the measured power levels to at least two thresholds.

23.   (Original) The method of claim 21, wherein adjusting the power level of the voice signal stream includes applying a gain value to the stream.

24.   (Original) The method of claim 21, wherein measuring the power level at a number of points in time includes measuring a power level of a number of segments of the voice signal stream.

25.   (Original) The method of claim 24, wherein comparing at least one of the power levels to a threshold includes comparing the measured power level at each segment with the threshold.

26.   (Original) The method of claim 21, wherein the method further includes averaging the power levels measured at the number of points in time and comparing the average to a threshold.

27.   (Previously Presented) A computer readable medium having a program to cause a device to perform a method, comprising:
        receiving an outgoing voice signal stream;
        measuring a power level of the outgoing voice signal stream at a number of points in time before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN);
        comparing at least one of the measured power levels with a threshold; and
        adjusting the power level of the outgoing voice signal stream based on the comparison to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN.

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28. (Original) The computer readable medium of claim 27, wherein adjusting the power level of the voice signal stream includes adjusting the power level in differing increments based on a proximity of the measured power level to the threshold.

29. (Original) The computer readable medium of claim 27, wherein the method further includes defining an average measured power level of a number of segments.

30. (Original) The computer readable medium of claim 29, wherein a power level of a newest measured segment replaces a power level of an oldest measured segment and a new average is calculated.

31. (Original) The computer readable medium of claim 27, wherein adjusting the power level includes adjusting before the signal stream enters a T1 channel connected to a Public Switched Telephone Network.

32. (Original) The computer readable medium of claim 27, wherein receiving a voice signal stream includes receiving a voice signal stream stored in memory.

33. (Original) The computer readable medium of claim 27, wherein receiving a voice signal stream includes receiving a voice signal stream output from a text-to-speech application program.

34. (Previously Presented) A method for adjusting the power level of a voice signal stream, comprising:

measuring a power level of an outgoing voice signal stream at a number of points in time before the outgoing voice signal stream enters an output channel that is communicating the outgoing voice signal stream to a Public Switched Telephone Network (PSTN);

comparing a number of the power levels measured with a number of thresholds; and

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gradually adjusting the power level of the outgoing voice signal stream over time based on the comparison to bring the power level toward a target output level to operate within compliance of the PSTN before the outgoing voice signal stream enters the output channel in communication with the PSTN.

35.   (Original) The method of claim 34, wherein gradually adjusting the power level includes changing an amount of adjustment based upon a proximity of the power level to the target output level.

36.   (Original) The method of claim 34, wherein comparing a number of power levels includes comparing the power levels to four thresholds.

37.   (Original) The method of claim 36, wherein gradually adjusting the power level includes increasing an amount of adjustment when the power level is outside a first set of thresholds with respect to the target output level.

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IX.   EVIDENCE APPENDIX

None

X.   RELATED PROCEEDINGS APPENDIX

None